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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,542	06/23/2000	Warren L. Braun	05380003AA	1198
30743	7590	11/18/2004	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C.			TRAN, HAI V	
11491 SUNSET HILLS ROAD			ART UNIT	
SUITE 340			PAPER NUMBER	
RESTON, VA 20190			2611	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/599,542	Applicant(s) BRAUN, WARREN L.	
	Examiner Hai Tran	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05/23/00</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 4, 6-11, 14-18, 20, and 22 are rejected under 35 U.S.C. 102(e) as being unpatentable by McAlear (US 6598232).

Regarding Claim 1, McAlear discloses a signal distribution system including (Fig. 3B) including

a communication path between a central facility, including a signal source and a plurality of cable drops (Fig. 3B),

a condition detector at respective ones of the plurality of cable drops (Fig. 3B, el. 140 and Fig. 5);

means for providing a sequence of tones responsive to the condition detector (Col. 16, lines 42-47; Col. 17, lines 15-49);

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means for coupling the sequence of tones to the communication path during a time slot determined by a time base at a termination section (Fig. 3B, el. 140) of the communication path (Col. 47-Col. 17, lines 26), and

means for decoding the sequence of tones at the central facility (Col. 17, lines 35-50; Col. 20, lines 43-65+).

Claim 4, McAlear (Col. 10, lines 50-61; Col. 12, lines 14-33; Col. 16, lines 34-42; Col. 20, lines 43-65+) further discloses wherein the condition detector detects at least one of power outage and ingress (the system must detects noise in order to perform the function as disclosed).

Claim 6, McAlear (must have a directional coupler in order to function as disclosed; Fig. 3B, Col. 14, lines 45-Col. 15, lines 10) further discloses wherein the time base is provided at a directional coupler providing communication links to a plurality of the cable drop.

Regarding Claims 7 and 8, limitation "a counter for counting time slots and a comparator responsive to the counter for identifying time slots corresponding to respective ones of the plurality of cable drops" is further met by McAlear 's time base (TDM; Col. 27, lines 16-26) in which requires a time out to determine a fault and have a comparator to compare between the a time out and the noisy condition of the network so to determine respective fault at one of the plurality of cable drops as disclosed (Col. 13, lines 25-28; Col. 17, lines 26-Col. 20, lines 65+). Thus McAlear system encompasses those claimed limitation.

Claim 9, McAlear further discloses means for latching an output of the condition detector and wherein the comparator is responsive to an output of the means for latching and the counter for controlling the means for generating the sequence of tones (Col. 20, lines 43-Col. 22, lines 37).

Regarding Claim 10, see above analysis of Claims 6-8.

Regarding Claim 11, see analysis of Claims 7 and 8.

Regarding Claim 14, "means for synchronizing the counter with the means for counting time slots at the central facility" reads on McAlear' s system shows a maintains a time slot allocation map which keeps track of time slots assigned to individuals cable modems (Col. 10, lines 1-8, 50-61; Col. 13, lines 26-67; Col. 20, lines 18-26)

Regarding Claims 15-17, McAlear system must stores power for operation of condition detector by providing sequences of tones as discussed from the previous claims and modulate the carrier signal in the CATV environment in which the carrier signal of approximately 25Khz is notoriously well known in the art as disclosed by McAlear (Col. 11, lines 36-Col. 12, lines 6).

Claim 18, as discussed with respect to apparatus claim 1, McAlear further discloses a method of monitoring a plurality of terminal units of a system including the steps of assigning a time slot of a plurality of sequential time slots to each terminal unit of a group of terminal units, said time slots being independently but

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synchronously defined at a termination section and a central station of said system (Col. 9, lines 14-Col. 12, lines 51; Col. 13, lines 25-25), respectively, selectively coupling a signal including a sequence of tones to a communication link of said system in a time slot corresponding to a terminal unit based on a detected condition (Col. 20, lines 18-37), and

identifying a terminal unit in accordance with said sequence of tones at a central facility and synchronized with said time slots (Col. 22, lines 38-Col. 24, lines 33).

Claim 20, McAlear further discloses the step of transmitting a further tone corresponding to said detected condition (Col. 16, lines 60-Col. 17, lines 14).

Regarding Claim 22, McAlear system must stores power for operation of condition detector by providing sequences of tones as discussed from the previous claims and modulate the carrier signal in the CATV environment in which the carrier signal of approximately 25Khz is notoriously well known in the art as disclosed by McAlear (Col. 11, lines 36-45), thus meets "storing power for performing said assigning and selectively coupling steps with electrical circuits".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAlear (US 6598232).

Claim 2, McAlear does not clearly disclose the means for providing the sequence of tones provides a sequence of tone pairs; however, McAlear disclose the means for providing the sequence of tones (timing tone; Col. 17, lines 35-50; Col.20, lines 43-65+).

Official Notice is taken that the use of a mean for providing the sequence of tones provides a sequence of tone pairs is notoriously well known in the art (i.e., in the telephone industry, the depression of any given sensor on a standard twelve sensor telephone keypad generates one of twelve pairs of audio tones, dual tone multifrequency signal (DTMF). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McAlear to provide a sequence of tone pairs (DTMF tones) so to take the advantage of conventional and proven technology that is widely used and accepted. Moreover, Circuits for generation and decoding of DTMF signals are easily obtainable and cheap. And lastly, the dual tone requirement lessens the probability that the receiver could interpret a random signal as data.

Claim 23 is analyzed with respect to claim 2.

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3. Claims 3, 5, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAlear (US 6598232) in view of Ortel (US 5712897).

Claim 3, McAlear does not clearly disclose "wherein the means for decoding provides a digital signal input to printer."

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to printer (Fig.3, element 303; Col. 4, lines 49-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McAlear with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

Claim 5, McAlear does not clearly disclose wherein the system is divided into a plurality of sectors.

Ortel further discloses wherein the system is divided into a plurality of sectors (Col. 5, lines 45; Col. 4, lines 38-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McAlear with Ortel so the system able to determine the exact location of error.

Claim 19 and 21 are analyzed with respect to claim 3.

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4. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAlear (US 6598232) in view of Ortel (US 5712897) and further in view of Cheng (US 5,563,883).

Regarding Claim 12, McAlear does not clearly disclose means for controlling polling frequency of the cable drops; However, McAlear discloses during an open time slot, HAR 140 communicate to the headend 144 recently connected cable modems to the network (Col. 24, lines 1-33).

Cheng discloses a two-way multi-media communication services which controls the polling frequency of the cable drops (Col. 2, lines 35-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McAlear by controlling the polling process, as taught by Cheng, so to solicit request from all terminals assigned to the signaling data channel (Col. 2, lines 55-58).

Regarding Claim 13, McAlear does not clearly disclose the step of resetting the system.

Cheng discloses the step of resetting the system, see Fig. 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McAlear with Cheng so the system could reinitialized to the beginning by synchronizing all connected cable modems.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

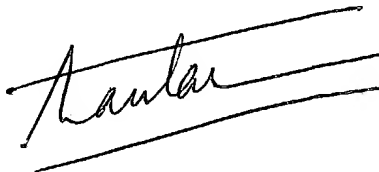
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is 703-308-7372. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C. Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht
11/12/2004

A handwritten signature in cursive script, appearing to read "HAITIAN", is written over three horizontal lines.

HAITIAN
PATENT EXAMINER